

Attorney's Docket No.:10559/233001/P8882/Intel Corporatin

In the claims:

Please amend the claims as follows:

1. (Currently amended) A method of managing usage of a resource in a network system, the method comprising:

maintaining a database indicating total resource usage in the network system;

indicating an available amount of credit for usage of a resource by a process based on said total resource usage;  
and

decreasing said total resource usage according to a function of time; and

regulating usage of the resource by the process as a function of the indicated available amount of credit and allowing increased usage of the resource by the process based on said decreasing.

2. (Currently amended) The method of claim 1, wherein the resource comprises one of memory space or system processor time.

3. (Previously amended) The method of claim 1, wherein the network comprises an embedded computer system.

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4. (Original) The method of claim 1, wherein the network operates in a real-time networking environment.

5. (Original) The method of claim 1, wherein the method is modeled as a leaky bucket.

6. (Previously amended) The method of claim 1, further comprising:

determining a priority of the resource; and  
allocating the resource based on the priority of the resource.

7. (Previously amended) The method of claim 1, wherein regulating usage of the resource comprises modifying the available credit by adjusting a maximum resource usage value.

8. (Original) The method of claim 1, further comprising notifying the process of the availability of the

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credit if the indicated available credit is less than a requested usage amount.

9. (Previously amended) The method of claim 8, wherein notifying the process comprises sending a message to a network address associated with the process when the requested usage amount is greater than the available credit.

10. (Currently amended) A method of managing a plurality of resources in a network having a plurality of devices, comprising:

maintaining a database indicating total resource usage in the network system;

for each of the plurality of resources accessed by each of the devices, creating a software tool on the device for accessing the resource, and using the software tool to indicate an available amount of credit for usage of the resources by the device, said amount of credit being based on said total resource usage,

decreasing said total resource usage according to a function of time; and

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regulate the usage of any of the plurality of the resources by any of the plurality of devices as a function of the indicated available amount of credit and allowing increased usage of the resource by the process based on said decreasing.

11. (Currently amended) The method of claim 10, wherein the creating step comprises:

allocating a descriptor representative of any of the software tools to any of the plurality of devices; and associating with each software tool a maximum usage level.

12. (Previously amended) The method of claim 11, wherein the using step comprises:

decrementing the maximum usage level of the software tool in response to the use of the resource associated with the tool by any of the plurality of devices;

calculating the available amount of credit based on the usage of the resource associated with the tool as a function of the maximum usage level; and

indicating to a device waiting to use the resource associated with the tool of the available amount of credit.

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13. (Original) The method of claim 12, wherein the indicating step comprises sending a message to a network address associated with the waiting device to indicate when the available exceeds a specified usage level.

14. (Original) The method of claim 13, further comprising incrementing the maximum usage level to at least correspond to the specified usage level.

15. (Original) The method of claim 11, further comprising overriding the maximum usage level to allow a device access to one of the plurality of resources.

16. (Original) The method of claim 10, further comprising destroying the software tool in response to a request from one of the devices.

17. (Currently amended) Computer software, residing on a computer-readable medium at a device connected to a network, comprising instructions to cause the device to perform the following operations:

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maintaining a database indicating total resource usage  
in the network system;

indicating an available amount of credit for usage of  
a resource based on said total resource usage; and

decreasing said total resource usage according to a  
function of time; and

regulating usage of the resource by a process as a  
function of the indicated available amount of credit and  
allowing increased usage of the resource by the process  
based on said decreasing.

18. (Currently amended) A network including a  
plurality of devices, comprising:

a plurality of resources running in the network; and  
computer software, residing on a computer readable  
medium at each device accessing the plurality of resources  
to cause the device to perform the following operations:

maintaining a database indicating total resource usage  
in the network system;

indicating an available amount of credit for usage of  
a resource based on said total resource usage; and

decreasing said total resource usage according to a  
function of time; and

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regulating usage of the resource by a process as a function of the indicated available amount of credit and allowing increased usage of the resource by the process based on said decreasing.

19. (Previously amended) The network of claim 18, wherein the plurality of resources comprise memory space or system processor time.

20. (Previously amended) The network of claim 18, wherein the network comprises an embedded computer system.

21. (Previously amended) The network of claim 18, wherein the network operates in a real-time networking environment.

22. (Previously added) The method of claim 1 wherein the available amount of credit comprises a difference between a first value representing a maximum resource usage allocated to the process and a second value representing an amount of resource currently used by the process.

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23. (Previously added) The method of claim 1 wherein the available amount of credit increases per unit of time by an estimated value of the resource that becomes available per unit of time.

24. (Currently amended) A method of managing usage of a resource in a network system, the method comprising:

maintaining a database indicating total resource usage in the network system;

indicating to each of a plurality of processes an available amount of credit for usage of the resource by the process based on said total resource usage; and

decreasing said total resource usage according to a function of time; and

regulating usages of the resource by the processes according to the indicated available amount of credits for the processes and allowing increased usage of the resource by the process based on said decreasing.